Critical thinking from Stanley Foundation conferences

# POLICY*dialogue* BRIEF

## Countdown to 2020

A turning point in emissions by 2020 is a requirement for staying within the 1.5° C target, the ambitious goal set out in the 2015 Paris Climate Agreement.[1] At its 48th annual UN Issues Conference, the Stanley Foundation gathered a group of proactive countries and the largest leading climate action coalitions to develop a road map for international policy and climate action for achieving a turning point in global carbon emissions by 2020. This policy dialogue brief highlights the key themes and recommendations from conference participants, which include the need to identify and connect climate action tipping points in the real economy with international policy, as well as to develop a shared strategy around political moments for policymakers and subnational and nonstate actors to coordinate their actions, in order to achieve policy that encourages action in the real economy, and real economy tipping points leveraged for political action leading up to 2020.

**48th United Nations Issues Conference**

**Sponsored by The Stanley Foundation**

**March 29-31, 2017**

**Tarrytown, New York**

### Executive Summary

In order to limit global warming to 1.5° C and avoid climate devastation of catastrophic magnitude, a global turning point of emissions is needed by 2020, followed by rapidly decreasing emissions toward zero by midcentury. The world will not achieve this task by following the route it is currently on, but through a collaborative approach involving countries in the international political process and subnational and nonstate actors taking action, it is possible to realize this goal. Further, following this pathway is desirable, as it creates economic development and enhances the social well-being of societies in developed and developing countries.

While the real economy moves forward, country pledges are insufficient to meet the goals of the Paris Agreement. This policy dialogue brief chiefly recommends that the United Nations Framework Convention on Climate Change (UNFCCC) 2018 Facilitative Dialogue process be used to achieve a commitment to strengthen or increase the ambition of nationally determined contributions (NDCs) in 2019 and 2020, many of which are now either not ambitious enough or not backed by policy to see ambition through. The brief identifies the key actors and opportunities over the next months and years for taking policy action and then elucidates the methods by which subnational and nonstate actors can be connected to policy opportunities. Following this section, the brief focuses on the sectoral tipping points that maximize action in the real economy behind national ambition and the strategic opportunities on the policy calendar for taking action and making these connections.

This brief summarizes the primary findings of the conference as interpreted by the rapporteur, Mark Conway, the organizer, Rei Tang, and the chair, Andrew Higham. Participants neither reviewed nor approved this brief. Therefore, it should not be assumed that every participant subscribes to all of its recommendations, observations, and conclusions.

Over the next several years, countries, states, regions, cities, businesses, and advocates must collaborate in order to achieve the goals of the Paris Agreement and create the turning point in global emissions by 2020. This brief identifies several key moments and collaborations necessary to accomplish this and recommends that:

- Proactive countries and the largest leading climate action coalitions need to develop approaches to collaborate on achieving the following tipping points prior to 2020 that would result in limiting global warming to 1.5° C: expanding renewable energy and phasing out coal, transitioning from fossil-fuel to electric vehicles, building sustainable city infrastructure, investing in the green economy, and ending deforestation.

- Ministers from proactive countries should establish links with leading multistakeholder coalitions for climate action in order to align international policy with efforts by subnational and nonstate actors to change the real economy.

- The contribution of ambitious coalitions and actors in the real economy need to buoy the Intergovernmental Panel on Climate Change special report on 1.5° C, to be released in 2018, by emphasizing that this target is achievable with concerted effort.

- Leading multistakeholder coalitions for climate action—of cities, states, regions, and businesses—attending the nonstate-focused Global Climate Action Summit to be held in California in 2018 should make firm "asks" to ministers prior to the UN negotiations.

- The Climate Vulnerable Forum (CVF) Summit in late 2018 should boost support for strengthening NDCs through the Facilitative Dialogue and reinforce CVF member commitments to 100 percent renewable energy (RE100).

- At the 24th Conference of the Parties (COP24) in 2018, ministers must signal their intention to revise NDCs by 2020 and make announcements of enhanced ambition. Parties must also take up the work of developing the Paris rule book in 2017, and have developed a set of robust rules by COP24 that includes transparency measures, and guidelines on NDCs and the global stocktake, among other things.

- The Sustainable Development Goals (SDGs), one of the primary ways the UN secretary-general will engage with climate change moving forward, will be of particular importance in the UN General Assembly's annual meeting in 2020. Leading up to this important moment, the climate community must make the most of the 2018 High-Level Political Forum (HLPF) focusing on SDG 15, pertaining to land use, and the 2019 HLPF on SDG 13, pertaining to climate change. The SDGs offer an opportunity to bring the development community further into the climate space.

- COP26 in 2020 will be the moment for parties to submit new, enhanced NDCs that already have movement and support in the real economy.

*Key to bringing together policy and action in the real economy will be coordinating states and subnational and nonstate actors on developing and implementing ambitious NDCs.*

This brief recommends a number of approaches that should be implemented in a coordinated manner by stakeholders at all levels. These approaches include:

- **Focus on Sectoral Tipping Points:** Achieving the 1.5° C goal requires huge ambition that transforms economies. These sectors include energy, transportation, cities and built environment, heavy industry, and land use. Implementing these changes must begin with concrete goals that enable investment and can deliver results in the near term. A focus on specific sectoral tipping points will help stakeholders, particularly subnational and nonstate actors, which hold much of the leverage in the real economy, develop specific goals to deliver on and enable investors to plug into concrete plans, as opposed to aspirations.

- **Coordinate Subnational and Nonstate Coalitions in Key Countries:** Coordinating action at the national level also allows for states, regions, and businesses to provide backing for NDCs. Change can come quickly, both in the real economy and politically, by focusing coordination of climate action in key countries that have important industries and markets or ambitious sustainable development plans. These stakeholders often hold key leverage in the real economy, but in an interdependent way, and must coordinate to deliver action at scale.

- **Make Climate Action Plans Investable Propositions:** Stakeholders at all levels must come to investors with concrete asks and opportunities. They must also develop a more nuanced understanding of finance and investment that center on a variety of opportunities instead of only institutional investors. Investors must increase assistance to some of the least-developed countries, where economies are not developed enough to spring into action independently.

- **Expand Climate Policy Beyond Environmental Ministries:** National stakeholders outside of ministries of environment need to be on-board in developing and implementing NDCs. Ministers of finance, transport, energy, and infrastructure, for example, must provide the political backing for NDCs that enables them to be put into action.

The above areas of focus can be approached in a complementary way, in which sectoral focus allows for a level of specificity to connect subnational and nonstate action with a variety of investors, especially when coordinated at national scales. Large-scale implementation will shift the real economy in ways that have cascading effects. At the national level, this can boost support for NDCs, encourage the backing of a variety of ministers who now see the real impetus for action, and provide specific goals and nodes of engagement for policymakers.

This brief will explore the connections between action in the real economy and policy, with a focus on developing sectoral-based tipping points. Coordination of subnational and nonstate actors at national levels, through sectoral-focused leadership forums, is key. These leadership groups can identify the key tipping points for action and align a variety of actors with leverage over key areas behind national-level ambition and NDCs. Focus on sectoral themes will also help to develop concrete plans for action, which will attract investors who see concrete opportunities that can move at large scale. Action and investment at larger scale will also help incorporate policymakers who are left out or on the sidelines, such as ministers of finance, energy, and transportation. The involvement of these ministers is necessary to develop robust policy, which is too often only developed by ministers of environment. As these ministers see the utility and need to engage climate issues as action occurs in these sectors, the opportunity will emerge to develop more-robust climate policy.

There are a variety of forums, political moments, and communications opportunities for putting this coordination of real economy action and policy into motion over the next few years. The road map presented below highlights moments such as the G-20 Summit in July 2017, the Global Climate Action Summit in 2018, and the Facilitative Dialogue in 2018 as some of the most important moments to begin putting this plan into action. These events, respectively, provide connections to the investment world, allow for coordination of subnational and nonstate action, and allow for plans of action to strengthen NDCs.

In conclusion, this brief notes that though the road to a turning point in emissions by 2020 is difficult, it is possible through a variety of approaches involving stakeholders at all levels, engaging and coordinating actions and messages at key political moments. Taking action on the issue is not only of existential importance for nations like the Republic of the Marshall Islands but a desirable one for all societies.

## The Call to Action

In 2015, the international climate community felt momentum shift toward progress as the Paris Agreement emerged from negotiations at the 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC). This agreement was not only significant for its wide embrace, including by some of the world's biggest emitters, but also for codifying groundbreaking new ambition to limit global warming to 1.5° C. Remarkably, this ambition was led by the charge of the small, climate-vulnerable Republic of the Marshall Islands, with the backing of the newly formed Climate Vulnerable Forum (CVF). Their initiative was taken up by some of the largest nations and emitters, working alongside vulnerable countries through the newly formed High Ambition Coalition. This new 1.5° C goal carried weight, not only for the ambition it implied but because for most members of the CVF, warming beyond 1.5° C is an existential threat; in the case of the Marshall Islands, it will result in sea-level rise great enough to envelope the entire low-lying island nation.

This important and ambitious new commitment to limit warming to 1.5° C presents the world with a challenge, and though it is not insurmountable, it requires immediate and robust action that achieves a turning point in the global carbon emissions trajectory by 2020. The international climate community experienced quick political action when it came to ratification and entry into force of the Paris Agreement, achieved within a year of COP21. But as parties work to develop the rules and implementation of this agreement, they must continue to move quickly, not only with policy development but with real climate action in support of policy to achieve a turning point by 2020. A major key to achieving this will be effective cooperation between parties to the Paris Agreement and ambitious subnational and nonstate actors, who can deliver climate action in the real economy, which ultimately bolsters the nationally determined contributions (NDCs) of parties to the agreement. This brief summarizes the real economy actions and tipping points that could provide political leverage to support the Paris Agreement, as well as the policies that could help enhance climate action in the real economy.

## Connecting Policy and the Real Economy

Connecting policy with action in the real economy will be key to meeting 2020 targets. This section will outline the methods for accomplishing this, including a focus on sectoral tipping points, coordinating subnational and nonstate action at national scales, creating investable climate action propositions, and widening the scope of national policymakers involved in climate policy to include ministers of finance, transport, and energy. These strands are ultimately tied together in a way that demonstrates a cohesive plan of action for connecting policy and the real economy over the coming months and years leading to 2020.

Key to bringing together policy and action in the real economy will be coordinating states and subnational and nonstate actors on developing and implementing ambitious NDCs. In order to deliver on this, subnational and nonstate actors need to coordinate at the national level, especially as these actors often share leverage in the real economy and must cooperate to deliver at scale. As these actors collaborate, they must identify the major tipping points, or areas where collective climate action will see cascading follow-on action across the economy.

Policymakers must also foster forward movement in the real economy, for instance with carbon pricing that could spur investment and innovation in renewable energy technology. Coordination between international climate policy and climate action in the real economy is essential to achieving the reductions in greenhouse gas emissions needed by 2020.

Since the Paris Agreement, policy has too frequently been advanced without understanding or engaging the various pieces of implementation required for making a full transition to a decarbonized economy. As a signal of ambition and desire to grow support behind the Paris Agreement, many states rushed the development of their NDCs and now need the support of those who control the levers for driving action in the real economy or political capacity to see these commitments developed into national policy.

Often, the requisite support for seeing an NDC through must come from subnational or nonstate actors, including cities, state and regional governments, businesses, industry, and a variety of actors in finance. Stakeholders at these levels are needed to build local infrastructure or to provide financing to fund renewable energy or low-carbon transport projects. Of course, the issue with getting movement in this sphere is not necessarily that stakeholders lack the appetite to act. In fact, many are ambitiously taking on climate change and even leading the way; for instance, C40, the network of megacities committed to addressing climate change, has begun the work of aligning its member cities with the Paris Agreement, assigning the level of responsibility for emissions reductions each city has to meet the 1.5° C goal.

However, the task of achieving the turning point in global carbon emissions by 2020 requires initiating a complete economic transformation. No single stakeholder is able to drive the kind of action in the real economy needed to move this transformation at a pace to achieve peak emissions in 2020. Instead, leverage over key elements, processes, or capital is spread across multitudes of subnational and nonstate actors who must rely on one another to fully maximize their own efforts. For example, C40 cities have within their jurisdictions the ability to deliver over 525 gigatonnes of carbon dioxide equivalent by 2100, which puts them on the path to their share of the 1.5° C goal, but they only have control, or influence through private sector actors, of approximately half of those reductions.[2] Thus, cooperation is required, as subnational and nonstate actors often control the levers that must be moved to drive change in the real economy, but in order to accomplish this at scale, they must be able to coordinate their actions with one another and drive toward economywide transition, at the national and global scales.

Several complementary and pragmatic approaches to bridging this disconnect are laid out below and will be followed by an examination of how they might be put into action during political moments over the months and years leading up to 2020. The ultimate goal is to achieve strong NDCs backed by investable action in the real economy. One of the biggest moments for policymakers heading into 2018 is the Facilitative Dialogue, and though that moment itself may not deliver stronger NDCs, it should be viewed as an opportunity to seriously consider how policymakers can deliver on and revise NDCs from 2018 to 2020, while simultaneously coordinating climate action in the real economy over this period to bolster ambitious NDCs and signal their political strength.

## Focus on Sectoral Tipping Points

In the UNFCCC process, it may be said that sectors are where the rubber meets the road. While not all parties will commit to revised NDCs by 2018, many have the appetite to work on sectoral progress. Yet this is an area where more coordinated movement with subnational and nonstate actors is needed. The sectors to focus on are energy, infrastructure in cities and regions, transport, land use, industry, and finance. The Marrakech Partnership on Global Climate Action is the UNFCCC approach to taking on these issues in partnership with subnational and nonstate actors.[3] These actors have already begun ambitious action and target-setting in these sectors through initiatives like C40's Deadline 2020, the 2050 Platform, and science-based targets.[4] What will be vital moving forward is developing leadership forums for key subnational and nonstate actors to coordinate their actions at scale. The California Global Climate Action Summit in fall 2018 will be the key to developing these sectoral leadership forums, as well as developing and taking action on tipping points in each sector.

The Global Climate Action Summit will be a chance to invigorate sectoral action ahead of the Facilitative Dialogue and ambitious work on NDCs. This convening of subnational and nonstate actors taking climate action needs to be connected with the Marrakech Partnership, which has spurred countless numbers of ambitious initiatives that are too often disconnected from one another, as well as from NDCs and industry; too difficult to measure or quantify; and need more financial, technical, or human capacity to deliver.

Using the Global Climate Action Summit to develop sectoral leadership forums and connect to the Marrakech Partnership further advances the conduit between industry, the subnational and nonstate actors that are vital to their business models, and parties to the Paris Agreement. Subnational and nonstate actors would benefit from a more coordinated and focused interaction with the thematic areas. Parties should also consider, as they approach the 2018 Facilitative Dialogue and the development of the rule book for the Paris Agreement, how they might encourage subnational and nonstate actors to make firm policy asks. Coalitions of actors would help efforts in the real economy move faster, which would simultaneously support international policies and strengthen NDCs. These coalitions should develop full decarbonization goals in pursuit of the 1.5° C goal, taking for example the way C40 has done this through its *Deadline 2020* report, or the science-based targets developed for industry. The new 2050 Platform could be an excellent vehicle for accomplishing this at a sectoral level, spanning a variety of stakeholders at all levels.

Developing effective sectoral leadership forums, such as a Sustainable Low-Carbon Transport Leadership Forum, will provide visibility and a clear way for cities, states and regions, businesses, and industry to interact and create common and coordinated goals. This approach also helps sectors develop concrete goals and analysis, which make it far easier for businesses and investors to plug in financing. From the development of these goals, coalitions should coordinate around political messaging that would translate into clear asks of international policymakers, including in the revision of NDCs. One opportunity that is prime for this is the 2018 California Global Climate Action Summit, where subnational and nonstate actors can put their asks on the table, including directly with proactive countries leading into the Facilitative Dialogue, where they can begin work on strengthening NDCs around these specific asks.

*Developing effective sectoral leadership forums, such as a Sustainable Low-Carbon Transport Leadership Forum, will provide visibility and a clear way for cities, states and regions, businesses, and industry to interact and create common and coordinated goals.*

*A sectoral focus allows for the development of specific and concrete imperatives, which are easier for business and investment to support.*

Examples of sectors focused on tipping points include:

- **Energy:** CVF countries need support to deliver on their commitments for 100 percent renewable energy (RE100), including through coordinated implementation of city and business networks which would have impacts within and beyond the borders of CVF countries. Similarly, the coalition of least-developed countries (LDCs), which announced the African Renewable Energy Initiative at COP21, also announced plans for a renewable energy and energy efficiency initiative at COP22 in Marrakech. Coupling these initiatives with other efforts to phase out coal, similar to those in the United Kingdom, France, Canada, or Finland, for domestic energy use and export will be important to demonstrate the desirability of the transition.[5] Making good on these commitments in CVF and in LDC countries, through coordinated investment by ambitious networks, would have the effect of moving up in time the possibility of RE100 for all countries.

- **Electric vehicles:** The number of electric vehicles (EVs) on the road must be increased, including commercial and freight, by developing EV infrastructure and supporting this with large, coordinated purchases of EV fleets. Networks like C40 are already creating EV incentives and infrastructure, and businesses like DHL have invested in developing their own commercial EV fleets. US cities have also recently made announcements around plans to purchase approximately $10 billion in EVs, which should be duplicated by regional and national governments, as well as with business fleets. The launch of the Transportation Decarbonization Alliance will represent an opportunity for these ambitious actors to coordinate on a large scale and directly connect with the Paris process. Investment at this scale will help with the development of EVs and EV infrastructure for wider public adoption.

- **Carbon-neutral buildings:** Increasing the percentage of new buildings that are carbon neutral is vital, including within cities and regions, as well as by businesses and institutions. This can have an effect beyond just energy use within buildings, and have synergistic effects in heavy industries that supply building materials, as well as on the broader electric grid in the form of buildings that put renewable energy back on the grid. C40 has developed networks for private and municipal building efficiency, the latter of which can be a vital tipping point as governments often have large-buildings infrastructure that is a major source of emissions. C40 estimates that buildings account for nearly half of its members' emissions,[6] and cities like Cape Town, South Africa, have led the way by retrofitting 16 percent of its large municipal buildings, for savings of over 1,000 tons of carbon dioxide per year.[7] Projects by governments at the city, regional, and national levels can be further advanced by ambitious business leaders in coalitions like We Mean Business who can demonstrate at a large scale that carbon-neutral building is not only feasible but desirable, as shown by partnership programs in cities like Sydney, Australia, which work with commercial landlords to improve building efficiency and estimate that energy and water improvements save landlords approximately AU $30 million per year.[8]

- **Net-zero deforestation:** Commitments are needed by businesses to end deforestation, primarily through certification programs, as well as through jurisdictional approaches at city and regional levels through initiative like the Governors' Climate and Forest Taskforce, the New York Declaration on Forests, and the Tropical Forest Alliance. The New York Declaration on Forests seeks to end deforestation by 2030 and begin the process of restoring forests, through multistakeholder engagement, at levels that could cut carbon emissions by upward of 8 billion tons per year. The Tropical Forest Alliance looks to curb deforestation by 2020 through a focus on key commodity production, like soy, beef, palm oil, and paper. Further commitments by businesses and governments to end commodities-related deforestation is the key tipping point.

## Coordinate Subnational and Nonstate Coalitions in Key Countries

Subnational and nonstate action coordinated at a national level would create real climate deliverables at scale and build a connection to NDCs. Coordinated subnational and nonstate action could indicate to policymakers the key areas on which they should focus their attention and provide a clear picture for how to engage the real economy, particularly around key sectoral tipping points. Regional or national analysis would help businesses and investors develop specific business models and investment strategies. Such national coalitions might be built within city and business groups like the Global Compact of Mayors and We Mean Business. Members could coordinate activities at a national level, in support of NDCs where possible, and reinforce the tactics of their national networks with communications and messaging surrounding new cities or businesses joining their coalitions. Support of NDCs by subnational and nonstate actor coalitions will be invaluable during the Facilitative Dialogue, as states work to strengthen their NDCs, including through backing of policy with action in the real economy.

Change can take place quickly, both politically and in the real economy, when climate actions of subnational and nonstate actors are coordinated in key countries. In areas like the development of renewable energy, commitments by large companies, cities, and states and regions can begin to create movement at scale in the real economy and provide backing for political action to further develop renewable energy. This can be key in countries like China, India, and the United States, as well as the European Union, where high energy consumption offers the opportunity for larger emissions reductions and where the development of renewable energy at scale will result in the further development of renewable energy technologies and cost reductions as production occurs at larger scales. In these large economies, there are already important commitments by major corporations, cities, investors, and subnational and nonstate actors that can be coordinated to have a larger impact at the national scale, as well as beyond national borders through transnational corporations and trade relationships. The development of renewable energy will help to move the phaseout of coal at a faster rate, which will be key in countries like China and India, as well as many of their important trade partners in Southeast Asia, where building coal infrastructure is on the political agenda.

Coordination of subnational and nonstate initiatives on key sectoral goals and deliverables could take place in a number of ways, but alignment behind NDCs may be the most effective. In many cases, this alignment would help create clear, visible signals that action is taking place on NDCs, as well as further subnational and nonstate action toward common climate action goals, as well as investment in climate action projects and divestment from fossil fuels, as financial institutions take notice. Of course, not all nations have ambitious NDCs or the necessary political will to see them through, particularly in the new political environment following elections in the United States and Europe. However, ambitious subnational and nonstate actors can continue their work and coordinate at the national level, even in states tilting toward climate-laggard policies.

## Make Climate Action Plans Investable Propositions

Finance and investment are critical to moving ambitious action forward. There needs to be more financing to support ambitious climate action. NDCs can communicate how policies are to be implemented to provide the direction or confidence for certain would-be financiers. And while investment would typically target subnational and nonstate actors as the loci for action in the real economy, all of the levers to drive this change need to come together. With coordination and concrete asks, large-scale investment can be put into action. Subnational and nonstate actors, along with investors, must also consider the substantial risks of inaction and develop methods for investment disclosure regarding climate risks and insurance that reflect the level of risk under business as usual. Disclosure and insurance will bring along many other subnational and nonstate actors not currently at the vanguard of climate action.

Subnational and nonstate actors should develop ways to engage more effectively with investors. There are a number of forums where these actors can increase their participation and representation. The G-20, Climate Vulnerable Forum (V20), World Bank, International Monetary Fund, and World Economic Forum all present excellent opportunities for engagement. The G-20's Green Finance Study Group in particular is an opportunity for subnational and nonstate actors to bring concrete plans that add up to tipping points for shifting-the-trillions from brown to green. The climate community would also benefit from a more nuanced view of the investment community beyond its often-narrow focus on institutional investment. Dividing the community into the following four categories would be a great way to start thinking about the various channels to navigate and the types of concrete plans that fit investors well:

1. Public investment, such as national governments and multilateral investment banks.
2. Finance groups, such as city governments and investment banks.
3. Business investment, which can impact supply chains and support the nexus of political and economic action by setting climate-based targets in line with the 1.5° C

target and investing in new technologies in areas like renewable energy and transportation.

4. Institutional investment, where currently European climate funds are the most ambitious.

Investors can make improvements as well, such as building climate risk into investments and providing technical assistance to the LDCs. LDCs typically fly under the radar of investors compared to larger economies and need more political capacity to spur climate action. On top of this, they need more capacity to meet the fiduciary standards for investment by institutions like the Green Climate Fund. Increased investment in climate action and sustainable development in these countries can spur more real economy growth behind climate action and bolster NDCs, adding political capacity and investment from government bodies outside of ministries of environment, including ministries of finance, energy, and transportation.

Climate risk assessment should also be considered in investment portfolios. Currently, most of that risk falls on the public as an externality, and if properly accounted for in fossil-fuel investments, would help shift money toward renewables and sustainable development. There are climate disclosure reports on companies from groups like CDP, but further development is needed. Existing institutions, such as the Task Force on Climate-Related Financial Disclosures, could help provide this capacity. Investors would also benefit from solidified policies on carbon markets, which create a stable environment for renewable investment.

## Expand Climate Policy Beyond Environmental Ministries

While there are many opportunities for subnational and nonstate actors to leverage real economy tipping points to support climate policy, there are also opportunities for policymakers to aid in the growth of climate action in the real economy. A whole-of-government approach to climate action is one of the surest ways to accomplish this. Too often, international climate support is developed by ministries of environment in isolation from other agencies or subnational governments. Without the buy-in or support of ministries or subnational governments that are needed to implement and support these climate policies, they are destined to flounder. More robust political support behind climate policies would signal that governments are fully behind ambitious climate action and provide the capacity necessary to see it through. This signal and capacity would encourage investment and help develop key policies, such as incorporating climate risk into investment. It would also lend the support needed to subnational governments when it comes to decarbonizing the elements of their own infrastructure they do not directly control, such as certain components of energy production and transport infrastructure.

## Bringing These Approaches Together to Deliver Real Action in Support of Policy

Each of the approaches laid out in the previous section are truly complementary, and when implemented effectively add up to a whole greater than the sum of its parts. A sectoral focus allows for the development of specific and concrete imperatives, which are easier for business and investment to support. When this approach is coordinated through networks of subnational and nonstate actors at national and regional scales, it offers further incentive for investment and has compound effects that move technologies and economies toward carbon peaks and reductions at a faster pace. National coordination of action by stakeholders in the real economy will also bolster NDCs and provide political backing from a range of agencies that see the importance of climate action economywide and could include ministries such as finance, transportation, agriculture, and energy, among others. And finally, through a whole-of-government approach, where political support is integrated into a variety of agencies and subnational levels, policy is better able to drive action in the real economy through support structures that provide sectoral or subject-area expertise.

Take an example that could begin with a sectoral focus on sustainable low-carbon transport. Creating a tipping point toward the broader adoption of electric vehicles would contribute greatly to emissions reductions and help to incentivize the larger shift away from oil and gas production by lowering demand. Advances in EVs have developed rapidly over the last five to ten years, yet without a coordinated approach for developing this mode of transportation further in the real economy, progress at scale and technological advancement will be slower than desired, and setting ambitious NDCs will not be enough to change this. There is subnational and nonstate ambition to move forward with EVs, though. In networks like C40, the Global Covenant of Mayors, and ICLEI-Local Governments for Sustainability, cities focus on developing EV infrastructure and fleets; states and regions work on this front through the Under2Coalition and the Compact of States and Regions; and many businesses have committed to low-carbon fleets, with some like DHL going the extra mile of manufacturing their own electric delivery vehicles after automakers refused to develop them.[9] In a similar vein, 30 US cities, including Los Angeles, Chicago, and New York, have requested proposals from automakers for the cost and feasibility of producing approximately 114,000 electric vehicles.[10] The announcement from these cities reflects a level of frustration with automakers that have lagged on the development or production of electric vehicles, often citing lack of interest, and comes as the administration of President Donald Trump reviews the possibility of weakening vehicle-emissions standards.

These actors, through their various coalitions, could articulate specific goals for sectoral progress, such as the enlargement of city and regional EV charging infrastructure, commercial EV expansion, or increasing the number of two-wheel EVs to a certain percentage in cities. These could be tailored at national levels and inform and support ambitious NDCs, for example, the percentage of electric two-wheel vehicles across cities throughout China. The development of specific EV infrastructure projects with the backing of major subnational and nonstate actors working together at scale would provide investors the incentive to plug into specific and concrete projects. This coordination of activities would build support behind NDCs and inform policy direction and objectives. The scale and backing of projects would provide the impetus for policy backing by ministers of transport, energy, and finance, which would further develop a stable policy and economic environment for actors in the real economy to advance EVs at scale.

Connecting policy to action in the real economy is possible through coordinating and connecting subnational and nonstate actors behind sectoral goals and tipping points at a national scale. These thematic groups of subnational and nonstate actors will help to create concrete and investable climate action propositions. Developing robust plans for action across sectors, with investment to back it up, will help pull in ministers in areas beyond environment, including transport, energy, and finance, and help to develop more-robust climate action policies.

## Strategic Opportunities and Tipping Points on the Road Ahead

Achieving the 1.5° C target requires economywide transformation, which is difficult to achieve even when there is political will. As dynamics in the international system and climate change community shift, policymakers and subnational and nonstate actors must make the most of the capacity they have, targeting strategic opportunities and tipping points where a few actions can drive cascading effects in the real economy. A tipping point may come in the form of rapidly advancing technologies and products that are declining in price and increasingly popular; states or companies that are large enough that some movement creates ripple effects; or connected systems of products and services that, when moved in a coordinated way, create major shifts.

*As dynamics in the international system and climate change community shift, policymakers and subnational and nonstate actors must make the most of the capacity they have, targeting strategic opportunities and tipping points where a few actions can drive cascading effects in the real economy.*

Creating tipping points in the real economy can be thought of as increasing ambition through a funnel-like model, where a few ambitious initiatives take hold and, through their reach in the real economy or signaling strength, attract more action from others. In this model, ambition grows with increased action and eventually creates a critical mass expanding from the bottom up. Once there is a critical mass, movement develops and eventually creates a new norm. The new norm will be a durable, stable state that would, all things being equal, require as much energy to shift away from as it did to create.

### Opportunities

Over the coming months and years, the climate community must identify opportunities for connecting action in the real economy with policy. These opportunities may arise at major policy moments or venues but must be coordinated so states can connect vital processes or messages with the concrete action or plans of subnational and nonstate actors. One of the biggest opportunities follows the major announcement at COP22 in Marrakech from the CVF, which made a commitment to going RE100. This was a powerful message from those who are most at risk from climate change yet are some of the least responsible for emissions. By indicating that they would move now on this major goal, they at once set a positive and ambitious tone around the moral imperative of taking climate action to protect these vulnerable nations, while proving that if these developing, often small economies could achieve this, it is possible for everyone to accomplish it. But now, the CVF nations must quickly develop their plans and act on them. There is risk that if they do not, their announcement rings hollow. If they are able to act, though, they can effectively shift the dates of RE100 ahead in time for everyone by indicating powerfully how this task is viable for any country.

The CVF is not alone in the world of developing countries committed to renewable energy. The coalition of LDCs, which announced the African Renewable Energy Initiative at COP21, also announced plans for a renewable-energy and energy-efficiency initiative at COP22 in Marrakech. The LDCs are also trying to keep the message positive on renewable energy, an area that offers a lot for developing countries by way of energy access and development; however, many of these countries lack the ability to move in the real economy, even if the will were there. The challenge for them is to at once develop a whole-of-government approach capable of seeing this commitment through and attract finance and investment to commit to investing in this endeavor. Engaging with investment banks and at forums like the G-20, the climate community should encourage institutional investment to make commitments to these ambitious countries. Through transnational networks, businesses can work with cities and regions in these countries to develop concrete plans for switching to renewable energy. This movement will encourage a variety of ministers to develop plans for transitioning to an RE100 economy. Thus, ambitious NDCs will have backing in the real economy and develop more-robust support politically.

*Stakeholders must coordinate their actions around key political moments in order to achieve policy that encourages action in the real economy.*

One key place to look for policy that spurs renewable energy investment would be carbon pricing that encourages renewable energy investment and innovation. Though some studies have been conducted, more are needed, and larger case studies could offer indicators for how policies in specific countries could be duplicated elsewhere, including building in integrity in the market of carbon pricing, either directly or through feed-in mechanisms.

There are also possibilities for larger countries like India and China to boost movement in this direction. Though it is unlikely that either country will be announcing RE100 targets in the near future, these same subnational and nonstate networks, like C40 and the Under2Coalition, can target actions to move toward renewable energy. Additionally, major commitments to RE100 goals by some of the world's largest companies, including Ikea, Coca-Cola, Apple, Starbucks, Wal-Mart, and Nike, have the potential to create large ripples toward the broader adoption of renewable energy.[11] Such actions in these large economies and centers of production like China may have the capacity to cause tipping points in the real economy, which could in turn make technologies cheaper or more readily available globally, including in LDC and CVF countries.

In addition to developing and taking action on RE100 road maps, a major opportunity for most countries to get on track to 2020 will be to develop 2050 strategies—pathways that cast targets for midcentury carbon emissions back to the present, or "backcast," and develop clear pathways to emissions targets in 2020. Few countries have submitted long-term strategies yet, but opportunities are emerging for doing so. The 2050 Pathways project will include stakeholders at all levels in the development of these plans. Coordination on these midcentury plans will be essential, as they will give parties to the Paris Agreement an understanding of the policy they need to implement to achieve movement in the real economy and subnational and nonstate actors the space to coordinate their actions at a national level to achieve this in support of states. Developing this kind of concrete plan will also help attract investments and business commitments to climate action.

## Key Political Moments in the Countdown to 2020

Stakeholders must coordinate their actions around key political moments in order to achieve policy that encourages action in the real economy. Below is an outline of the major political moments for action leading up to 2020.

### V20 Meetings

The group representing ministers of finance from the V20 countries will present opportunities for engagement by investment and finance, businesses, and members of civil society. This will be an important venue to develop the plan for moving on the ambitious goals of the CVF, in particular the commitment to going RE100. This forum is also a great opportunity to discuss implementing plans by ministers outside of environmental ministries on creating action in the real economy and plans that bolster ambitious NDCs. Subnational and nonstate actors should lobby for the development of specific, sectoral-based projects to be taken up at the city and regional levels that offer the opportunity for businesses to make investments in partnership with the V20.

### G-20 Summit

The G-20 Summit in July 2017 is one of the first major political moments on the countdown-to-2020 calendar. This forum is ripe for raising a number of issues generally, and under German leadership, it presents a real opportunity for climate action. As indicated above, it is an essential place for subnational and nonstate actors to engage with investment and finance, particularly through the Green Finance Study group. It is also an excellent moment to put some pressure on the political agenda of major emitters, encouraging them to join the fold, strengthen their NDCs, develop long-term strategies, and collaborate with the subnational and nonstate actors who are key to accomplishing their policy goals in the real economy. The climate community must also coordinate with investors, with trillions of dollars in assets, who have called on the G-20 to adopt the recommendations of the Global Investor Statement on Climate Change.[12]

### Intergovernmental Panel on Climate Change Special Report on 1.5° C

The Intergovernmental Panel on Climate Change (IPCC) will release a special report in 2018 providing an assessment on what it will take to achieve the 1.5° C target. The IPCC has taken on this task with little time to put the report together. As the report will not commission research itself but review literature on the issue, there is a risk that there will not be an adequate amount of peer-reviewed literature on this issue to deliver a very comprehensive report, particularly when it comes to the assessment of policy and political processes. What is still of vital importance for inclusion in the report is the contribution of actors in the real economy who have already developed insights into solutions to achieving the 1.5° C but that exist in the form of corporate strategies or the policies of ambitious cities and do not appear in the peer-reviewed journals the IPCC will rely on for input. Thus, it is possible the report will miss critical information and deal a blow to the potential of achieving the 1.5° C target, which would take the air out of climate momentum. It is therefore imperative that the scientific, academic, and think-tank worlds move to study the issue and submit articles on the topic to peer-reviewed journals by the end of October 2017. The IPCC requires that articles be submitted to peer-reviewed journals by this date and accepted by April 2018 in order to be considered for inclusion in the report. The community must also prepare for the release of the report by coordinating communications on what the report means and how the world can take action to achieve the 1.5° C goal.

### Global Climate Action Summit

In 2018, California will host a summit to focus on nonstate actors' taking global climate action. Though this is not a UN event, it should provide the space for close collaboration with the Marrakech Partnership in order to bridge the gap between how subnational and nonstate actors can support NDCs and parties to the Paris Agreement can bolster initiatives that directly impact the real economy at local and regional levels. This summit presents one of the best opportunities to coordinate, in the same year as the Facilitative Dialogue, how subnational and nonstate actors can coordinate to move the real economy in support of the Paris Agreement and NDCs. It should also be an opportunity for subnational and nonstate actors to coordinate and discuss taking action in national coalitions in addition to global networks. The summit will be an opportunity to showcase leadership and ambition, and the steering committee should call on participants to bring firm asks for ministers at COP24 and the Facilitative Dialogue.

### CVF Summit

The CVF will host a summit in late 2018 that will look to boost support for strengthening NDCs through the Facilitative Dialogue, with the aim of producing well-developed NDCs in 2020. This will be a signaling opportunity for revising NDCs and a chance to strengthen the RE100 commitments of CVF members. The CVF summit will be an important moment for subnational and nonstate actors to show support for the ambitious CVF countries, which have been vital for providing the momentum toward the 1.5° C goal both inspirationally and through very ambitious climate action.

### World Bank and International Monetary Fund Meetings

Various meetings at the World Bank and the International Monetary Fund will be yet another opportunity for the climate change community to connect with important investors, as well as ministers of finance. This is also an opportunity to address providing financing to the LDCs to stimulate action in the real economy and support their NDCs. On top of this, a variety of stakeholders should engage on creating standards for climate risk and divestment in fossil fuels.

### Facilitative Dialogue

Though there is much to work out concerning the modalities of how the 2018 Facilitative Dialogue will function, it is one of the biggest political opportunities for coordinating and increasing climate action within the UNFCCC over the coming years. It may not be the biggest public-messaging moment, but it is the moment for states to recommit to strengthening, improving, and delivering on NDC commitments by 2020. One key matter to work through is the participation of subnational and nonstate actors in this process, as it is not an open process where all can join in. These actors, in dialogue with parties to the Paris Agreement, should coordinate on who will represent the interests of various subnational and nonstate groups to ensure that all are on the same page as they begin the important task of strengthening NDCs and working immediately on delivering real economy action in support of improved NDCs leading up to 2020. The Facilitative Dialogue will also be more of a process than a moment, which will include regional dialogues outside of the UNFCCC and should coordinate closely with the Global Climate Action Summit. Thus, to make the most of this moment, ministers must link subnational and nonstate actors in the real economy to their own work developing and strengthening their NDCs.

### Sustainable Development Goals

The year 2020 will also be a key one for the SDGs, which will be one of the primary ways the UN secretary-general will engage with climate change moving forward. Of particular importance will be the UN General Assembly's annual meeting in 2020, which will focus on the SDGs. Also on the agenda in the lead-up to 2020 are the 2018 HLPF focusing on SDG 15, which pertains to land use, and the 2019 HLPF on SDG 13, which pertains to climate change. The SDGs are an opportunity to expand the community taking the mantel on climate to include the development community. Through this community, a variety of subnational and nonstate actors can act with specific projects that bring climate action to the developing world, which can increase the level of investment behind NDCs of many LDC and CVF countries.

### Convention on Biological Diversity

The Convention on Biological Diversity will have a COP in China in 2020, which will be an opportunity to raise land use issues higher on the agenda and encourage leadership from China, an actor that can provide tremendous influence in the climate arena. Many in the climate community are giving renewed focus to the land use sector and have particular hope that the heavy inclusion of land use in NDCs will provide renewed commitment in this area. Moments leading up to the conference, such as the Facilitative Dialogue and IPCC special report focused on climate change and land use, will help focus the climate community on this important issue.

### Kigali Amendment to the Montreal Protocol

The entry into force of the Kigali Amendment to the Montreal Protocol would provide thrust behind the climate community at an important time for increasing ambition. With the ratification by 20 countries, the amendment will enter into force in January 2019. The climate community and states should be looking ahead to this moment during the Facilitative Dialogue and as they strengthen their NDCs. The climate community should encourage the ratification of this amendment, including during opportune times, such as the 29th Meeting of the Parties to the Montreal Protocol, which will take place in Montreal in November 2017.

### UN Secretary-General Summit

Many in the climate community want the UN secretary-general to hold a summit on climate in 2019 or 2020. This idea is nascent and will require strong backing and support from a champion, or a coalition like the CVF or the High Ambition Coalition. Such a summit could emphasize strengthening NDCs.

## Communicating Opportunities and Imperatives for Climate Action

Mobilization around climate vulnerable countries allows the climate community to tell a morally compelling story, but it is important to build this into a positive narrative that focuses on how the LDCs and CVF are moving forward with ambitious plans and that it is possible for everyone to follow in their steps. In developing this ambitious narrative, the climate community must also emphasize that these major transitions are not only feasible but are desirable. They will improve public health, increase access to energy, and both decrease and stabilize energy costs. This story will also powerfully demonstrate that gross domestic product and economic growth can be decoupled from carbon emissions.

The climate community must emphasize that the transition will be an equitable one, though, and that more is needed from policymakers on developing just transition policies. The workers who have put their health and safety on the line to provide our energy for decades must not pay disproportionately for the transition in the form of their jobs, livelihoods, and well-being. Policymakers must develop social safety nets, retraining and education programs, and transitional jobs in the green economy, among other things, to protect these workers and the communities that have relied on the fossil-fuel economy.

Nonstate and subnational actors should also coordinate their messaging, including at the national level, to demonstrate progress while achieving economic development and social equity. This can be accomplished through coalitions like C40, We Mean Business, and the Under2 Coalition. One of the biggest moments for making announcements and putting ambitious action on the table will be the Global Climate Action Summit in California in 2018.

There is also a need to coordinate on messaging that is more internal, like using the Facilitative Dialogue as an opportunity to raise ambition and strengthen NDCs. This moment will not provide a public rallying cry or draw the attention of many outside the international climate community, but it is important that the community and parties to the Paris Agreement are on the same page with this goal.

## Achieving the 2020 Turning Point

Among all of the opportunities in the coming years, using the Facilitative Dialogue in 2018 as a coalescing moment around strengthening and revising NDCs in 2019 and 2020 is perhaps the lynchpin. However, this will not be possible without engagement in a variety of forums by a variety of actors between now and 2020. Further, to truly strengthen NDCs, policy revision must be paired with action in the real economy. Subnational and nonstate actors must coordinate to develop plans that allow them to deliver on ambition at a scale that creates tipping points in the real economy. C40 road maps for cities to meet their share of the Paris Agreement and business action in line with science-based targets are a great start, but they must add up to tangible action at a large scale that moves entire economies forward.

This kind of action requires a variety of approaches to be taken up simultaneously, from the development of specific, sectoral goals to increased engagement with investors and financiers that can plug into these sectoral-based plans. All of this must be coordinated across national and regional economies in ways that support NDCs and encourage a broader, whole-of-government approach by parties to the Paris Agreement. If progress can be made in the real economy over the next several years, NDCs will carry more weight and governments will have clearer signals for where action is needed and how to engage the relevant subnational actors, as well as room for stronger mandates across agencies or ministries that realize the need for action.

The UNFCCC must finish the Paris Agreement rule book by 2018, reach agreement on the modalities for the Facilitative Dialogue and global stocktakes, and develop more concrete ways to connect the appropriate subnational and nonstate action into the process, including through the California Global Climate Action Summit, a key area for the Marrakech Partnership to plug in. The UNFCCC must consider its structure going forward, including the model of climate champions and the support they receive. Key engagements are also needed on the Convention on Biological Diversity, the SDGs, and the Montreal Protocol, in particular the implementation of the Kigali Amendment.

Achieving a global emissions turning point by 2020 is a large challenge that requires the world's full commitment, as its success is a matter of existential importance for the climate vulnerable. The Republic of the Marshall Islands has only a decade or so of business-as-usual emissions before it is swallowed by the rising waters of the Pacific Ocean. While the task may be difficult, it is possible to achieve and ultimately desirable for economic development and the social well-being of everyone. Making progress now will avoid catastrophic climate destruction and decrease a heavier lift in the future, as inaction delays the inevitable at a substantial cost. Stakeholders at all levels must begin charting the course between policy and the real economy together and begin the journey now to a global emissions turning point in 2020.

*Achieving a global emissions turning point by 2020 is a large challenge that requires the world's full commitment, as its success is a matter of existential importance for the climate vulnerable.*

## Endnotes

1 United Nations Framework Convention on Climate Change, Paris Agreement on Climate Change, 2015.

2 C40 and Arup, *Deadline 2020: How Cities Will Get the Job Done*, accessed April 10, 2017, *http://www.c40.org/other/deadline_2020*.

3 The seven thematic areas the partnership focuses on are human settlements, transport, energy, industry, land use, oceans and coastal zones, and water.

4 C40 and Arup, *Deadline 2020.* Science-based targets are a part of the Science Based Targets Initiative, a partnership of CDP, the United Nations Global Compact, the World Resources Institute, and the World Wildlife Fund. See *http://sciencebasedtargets.org/*. The 2050 Platform is a new initiative created by Laurence Tubiana to connect subnational actors in different sectors to 2050 targets.

5 Simon Evans, "UK Plans to Close Last Coal Plant by 2025," *Carbon Brief*, November 9, 2016, accessed April 13, 2017, *https://www.carbonbrief.org/uk-plans-to-close-last-coal-plant-by-2025*; Charlotte England, "France Is Shutting Down All Coal-Fired Power Plants by 2023," *Independent*, November 17, 2016, accessed April 13, 2017, *http://www.independent.co.uk/news/world/europe/france-close-coal-plants-shut-down-2023-global-warming-climate-change-a7422966.html*; Paul Vieira and Judy McKinnon, "Canada Aims to Fully Phase Out Coal Power by 2030," *Wall Street Journal*, November 21, 2016, accessed April 13, 2017, *http://www.wsj.com/articles/canada-aims-to-fully-phase-out-coal-power-by-2030-1479739247*; Alexandra Sims, "Finland Is Going to Completely Phase out Coal," *Independent*, November 25, 2016, accessed April 13, 2017, *http://www.independent.co.uk/news/world/europe/finland-plans-completely-phase-out-coal-2030-a7438731.html*.

6 *Climate Action in Megacities: C40 Cities Baseline and Opportunities: Version 1.0*, C40 Cities—Climate Leadership Group and Arup, June 2011, p. 6, accessed April 13, 2017, *http://c40-production-images.s3.amazonaws.com/researches/images/15_ARUP_20C40_20Baseline_20Report_20%281%29.original.pdf?1388095812*.

7 *Climate Action in Megacities 3.0,* C40 Cities—Climate Leadership Group and Arup, December 2015, p.35, accessed April 13, 2017, *https://issuu.com/c40cities/docs/cam_3.0_2015*.

8 "Energy and Water Efficiency,"Better Buildings Partnership," accessed April 13, 2017, *http://www.betterbuildingspartnership.com.au/projects/energy-and-water-efficiency/*.

9 "Deutsche Post DHL Makes Its Own Electric Delivery Vans," *Deutsche Welle*, June 15, 2016, accessed April 10, 2017, *http://www.dw.com/en/deutsche-post-dhl-makes-its-own-electric-delivery-vans/a-19332124*.

10 "Cities Shop for $10 Billion of Electric Cars to Defy Trump," *Bloomberg*, March 14, 2017, accessed April 10, 2017, *https://www.bloomberg.com/news/articles/2017-03-14/cities-shop-for-10-billion-of-electric-vehicles-to-defy-trump*.

11 The RE100 corporate campaign, run by the Climate Group with CDP, currently has commitments by 89 of the largest companies in the world. See http://there100.org/companies.

12 "Global Investor Statement on Climate Change," August 24, 2016, accessed April 13, 2017, h*ttp://investorsonclimatechange.org/wp-content/uploads/2016/08/FinalWebInvestorG20Letter24Aug1223pm.pdf*.

# Participant List

## Organizer

**Rei Tang,** Program Officer, The Stanley Foundation

## Chair

**Andrew Higham,** Chief Executive, Mission 2020

## Rapporteur

**Mark Conway,** Program Associate, The Stanley Foundation

## Participants

**Achala Abeysinghe,** Principal Researcher, Climate Change Group, Team Leader, Global Climate Change Governance, International Institute for Environment and Development

**Conor Barry,** Team Lead, Strategy Development, UN Framework Convention on Climate Change

**Jazmin Burgess,** Global Coordinator, Boots on the Ground (UNDP Strategic Initiative to Address Climate Change), Climate Change and Disaster Risk Reduction Cluster, Bureau for Policy and Programme Support, UN Development Programme

**Cristina Carreiras,** Mitigation and Carbon Markets Division, Department of Climate Change, Portuguese Environmental Agency

**Helen Clarkson,** Chief Executive Officer, The Climate Group

**Ian de Cruz,** Global Strategic Engagement Director, The New Climate Economy, The Global Commission on the Economy and Climate

**Yamide Dagnet,** Senior Associate, International Climate Action Initiative, World Resources Institute

**Amanda Eichel,** Executive Director, Global Covenant of Mayors for Climate and Energy

**Liz Gallagher,** Director, Climate Briefing Service, E3G Third Generation Environmentalism

**Kaveh Guilanpour,** Principal Advisor, Ministry of Foreign Affairs, Republic of the Marshall Islands

**Thomas Hale,** Associate Professor, Blavatnik School of Government, University of Oxford

**Wael Hmaidan,** International Director, Climate Action Network

**Cornie Huizenga,** Secretary General, Partnership on Sustainable Low Carbon Transport

**Adalbert Jahnz,** Climate Change Mitigator, European Commission

**Alexa Kleysteuber,** Deputy Secretary for Border and Intergovernmental Relations, California Environmental Protection Agency

**Heather McGeory,** Managing Director, We Mean Business

**Adriana Murillo Ruin,** UNFCCC Chief Negotiator, Ministry of Foreign Affairs, Republic of Costa Rica

**Pauliina Murphy,** Head of International Government Engagement, Aviva

**Peter Ogden,** Vice President for Energy, Climate and the Environment, United Nations Foundation

**Mariana Panuncio-Feldman,** Senior Director, International Climate Cooperation, World Wildlife Fund-US

**Emmanuelle Pinault,** Head of City Diplomacy, Political Engagement, C40 Cities Climate Leadership Group

**Sue Reid,** Vice President, Climate and Energy Programs, Ceres

**Shirin Reuvers,** Policy and Public Affairs Manager, Carbon Disclosure Project

**María Laura Rojas Vallejo,** Coordinator of Environmental Affairs, Foreign Ministry of Colombia

**Maurice Sadlier,** Assistant Director, Mary Robinson Foundation, Climate Justice

**Seth Schultz,** Director, Research, Measurement and Planning, C40 Cities Climate Leadership Group

**Jennifer Smyser,** Vice President and Director of Policy Programming Strategy, The Stanley Foundation

**Henri Waisman,** Coordinator, Deep Decarbonization Pathways Project, Climate Program, Institute for Sustainable Development and International Relations

**David Waskow,** Director, International Climate Initiative, World Resources Institute

**Jacob Werksman,** Principal Advisor to Directorate General for Climate Action, European Commission

**Thom Woodroofe,** Advisor, Republic of the Marshall Islands

## Stanley Foundation Staff

**Magda Gibson,** Operations Specialist, The Stanley Foundation

**Patty Papke,** Vice President and Director of Operations, The Stanley Foundation

Affiliations are listed for identification purposes only. Participants attended as individuals rather than as representatives of their governments or organizations.

## The Stanley Foundation

The Stanley Foundation advances multilateral action to create fair, just, and lasting solutions to critical issues of peace and security. Our work is built on the belief that greater international cooperation will enhance global governance and spur global citizenship. The foundation frequently collaborates with a wide range of organizations using different forums, formats, and venues to engage policy communities. We do not make grants.

Our programming addresses profound threats to human survival where improved multilateral governance and cooperation are fundamental to transforming real-world policy. Current efforts focus on policy improvement to prevent genocide and mass atrocities, eliminate the threat of nuclear terrorism, and drive collective and long-term action on climate change. The foundation also works to promote global education in our hometown of Muscatine, Iowa, and nearby.

A private operating foundation established in 1956, the Stanley Foundation maintains a long-term, independent, and nonpartisan perspective. Our publications, multimedia resources, and a wealth of other information about programming are available at *www.stanleyfoundation.org*.



209 Iowa Avenue
Muscatine, IA 52761 USA
563-264-1500
563-264-0864 Fax
info@stanleyfoundation.org

PRINTED ON RECYCLED PAPER 5/17 470